

Please replace the paragraph beginning at page 10, line 1, with the following rewritten paragraph:

The graft initiator may consist of the metal ions system  $\text{Fe}^{+++}$ ,  $\text{Fe}^{++}$ ,  $\text{Ag}^+$ ,  $\text{Co}^{++}$  or  $\text{Cu}^{++}$ .

a1 The peroxide should be chosen from the water soluble catalysts such as hydrogen peroxide, urea peroxide, ammonium persulfate, potassium persulfate and/or sodium metabisulfite. The monomers and prepolymers have side functional groups X, which may react between themselves and with additional prepolymers included into the formulation, forming a graft cross-linked organic coating. The functional groups of the monomers and prepolymers should consist of hydroxyl groups, carboxyl groups, secondary and/or tertiary amino groups. The molecular ratio of the functional groups of the reactive components are so adjusted that no free groups are left after the reaction is over. The physical and chemical properties of the prepolymers and monomers included in the formulation have been selected so that, when grafted onto the cotton fabric, they impart high temperature resistance, chemical resistance, non-leaching properties, and increased filtration efficiency for removal of carbon, soot, silica, metal particles and other contaminants from, for example, oil in an oil filtration system.

Please replace the paragraphs appearing in **Example 1** at page 10, line 20, through page 11, line 11, with the following rewritten paragraphs:

a2 **Example 1**

Formulation		
Ingredients	Parts By Weight	
Freetex 695 – polyacrylamide polymer	- 1.5	
Hot water (80°C)	- 98.5	0.1

Troysan polyphase AF-1 (bacteriacide)	- 0.1
Deionized water (DIW)	34.5
Mono 2-acrylamido-2-methyl propane sulfonic acid salt 50% aqueous solution (AMPS 2403)	40.0
Isopropyl alcohol (IPA)	37.5
Monomer HEMA – 2-hydroxy ethyl methacrylate	10.5
Ammonium persulfate (10% solution)	1.0
Sodium metabisulfite (10% solution)	1.0
Hydrogen peroxide (0.1% solution)	0.01
Silver nitrate (0.1% solution)	0.01

Please replace the paragraphs appearing in **Example 4** at page 14, line 14, through page 15, line 6, with the following rewritten paragraphs:

**Example 4**

Formulation

Ingredients	Parts By Weight
AMPS 2403 Monomer (50% aqueous solution)	30.0
IPA	25.0
DIW	23.0
HEMA (97% solution)	7.0
10% ammonium persulfate	1.0
10% sodium metabisulfite	1.0
Freetex 695 (wet with methanol)	- 1.5

Hot water (80 degrees C) - 98.5

dissolve Freetex and hot water with agitation, 0.1

cool down and add:

Troysan Polyphase AF-1 - 0.1

a3  
cancel

Please replace the paragraph appearing at page 19, line 21, through page 20, line 10, with the following rewritten paragraph:

a4  
In another example of a coating system, a formulation may be utilized comprising about less than 1% by weight (e.g., about 0.08%) of a polyacrylamide prepolymer dissolved in hot water (between 60-100°C) with a bacteriacide added thereto, about 20-40% (e.g., about 28%) deionized, distilled or otherwise pure water, about 20-40% (e.g., about 32%) mono 2-acrylamido-2-methyl propane sulfonic acid salt 50% aqueous solution, about 20-40% (e.g., about 30%) solvent such as isopropyl alcohol, about 4-15% (e.g., about 8%) monomer ester such as 2-hydroxy ethyl methacrylate, about less than 2% (e.g., about 0.8%) of a catalyst such as ammonium persulfate (10% solution), about less than 2% (e.g., about 0.8%) of a catalyst such as sodium metabisulfite (10% solution), about less than 2% (e.g., about 0.008%) of a catalyst such as hydrogen peroxide (0.1% solution), and about less than 2% (e.g., about 0.008%) of a graft initiator such as silver nitrate (0.1% solution). Curing is preferred, typically at a temperature of between about 100-130°C, but low enough so as not to adversely affect the fibers being treated.

On Page 14 (which is part of Example 3), please replace line 3 from the top of the page with the following rewritten line:

-- Ammonium persulfate 14% in water (adjust pH to 8.0-8.5) 1.0 --

a5